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Citizenship: US, Canada. Date of birth: 03/14/59

Languages: French, English, some Portuguese

EDUCATION

1982-1986: Ph.D. (Economics), Yale University, CT, U.S.A., May 1986. Thesis: "Hypothesis Testing in Time Series Regression with a Unit Root," Distinction.

1981-1982: M.A. (Economics), Queen's University, Kingston, Canada, October 1982.

1978-1981: B.A. (Economics), McGill University, Montréal, Canada, June 1981, First Class Honors.

PROFESSIONAL EXPERIENCE

1997 - : Professor, Department of Economics, Boston University.

1994-1997: Full Professor (Professeur Titulaire), Département de sciences économiques, Université de Montréal; 1992-1994: Associate Professor (Professeur Aggrégé), Département de sciences économiques, Université de Montréal; 1988-1992: Assistant Professor, Department of Economics, Princeton University; 1986-1988: Assistant Professor (Professeur Adjoint), Département de sciences économiques, Université de Montréal; 1985-1986: Lecturer (Chargé de cours), Département de sciences économiques, Université de Montréal.

- b) Research Centers: 1995-1997: Director, Centre de recherche et développement en économique (C.R.D.E.), Université de Montréal; 1993-1995: Assistant Director, Centre de recherche et développement en économique (C.R.D.E.), Université de Montréal; 1986-2002: Research Associate, Centre de recherche et développement en économique (C.R.D.E.), Université de Montréal.
- c) Visiting Positions: 2004, 2002, 2000, 1998 and 1995: Visiting Professor, Pontifícia Universidade Católica, Rio de Janeiro, Brasil; 1999: Visiting Professor, Université de Bourgogne, Dijon, France; 1997 and 1995: Visiting Professor, Universidade de São Paulo, Brasil; 1996: Visiting Scholar, Centre de Recherche en Économie et Statistique, Institut Nationale de la Statistique et des Études Économiques, Paris, France; 1996: Visiting Professor, Département d'Économétrie et d'Économie Politique, Université de Lausanne, Suisse.; 1994: Visiting Scholar, Département de Statistiques, Université Libre de Bruxelles, Belgium.
- d) Others: 1986-1987: Economic Consultant, Canadian Economic Council; 1986: Economic Consultant, Club du Sahel, O.E.C.D.

OTHER PROFESSIONAL ACTIVITIES

Co-Editor: Econometrics Journal (U.K.) (2003-2013).

Honorific Member of the Editorial Board: Economía Coyuntural (Bolivia) (2017-).

Advisory Editor: Journal of Time Series Econometrics (2008-); Open Economics (2016-); Journal of Risk and Financial Management (2018-).

Guest-Editor: Journal of Time Series Analysis, Special Issue on the "Application of time series methods to climate change issues", 2016-17; Econometrics: Special Issue on "Unit root and structural breaks", 2016-17; Journal of Risk and Financial Management: Special Issue on "Time Series Econometrics" (2019 -).

Associate Editor: Journal of Econometrics (1998-2006); Research in Economics (2016 -). Member of the Editorial Board of: Annales d'Économie et de Statistique (France) (1992-2006), Canadian Journal of Economics (Canada)(1991-1994), Econometric Reviews (1991-2002), Econometric Theory (1992-1995), Econometrica (1993-2002), Econometrics (2018 -), Economía (Peru) (2019 -), Economia Aplicada (Brazil) (1997 -), Economics Letters (1994-2003), Review of Economics and Statistics (1992-2002), Revista de Econometria (1993 -), Revista de Economia Applicada (Spain) (2020 -).

Member of the Grant Panel Review for the International Opportunities Fund of the Social Sciences and Humanities Research Council of Canada (2008-2009).

Member of the International Scientific Committee for Actualité Économique (Québec, Canada).

Member of the Executive committee for the: Canadian Economic Association (Canada) (1995-1997)

Referee for:

Scientific Journals: L'Actualité Économique, Annales d'Économie et de Statistique, The American Economic Review, Annals of Statistics, Applied Economics, Bernoulli, the Bulletin of Economic Research, Business and Economics Letters, the Canadian Journal of Economics, the Canadian Journal of Statistics, Climatic Change, Communications in Statistics (Series B, Theory and Methods), Communications in Statistics (Simulation and Computation), Econometric Reviews, Econometric Theory, Econometrica, Econometrics, The Econometrics Journal, Economic Inquiry, Economic Journal, Economic Reviews, Economica, Empirica: The Austrian Journal of Economics, Economic Modelling, Economics Letters, Empirical Economics, The Energy Journal, European Economic Review, Explorations in Economic History, Finance, Geneva Papers on Risk and Insurance Theory, Global Finance Journal, the International Economic Review, German Economic Review, International Journal of Climatology, International Journal of Forecasting, International Mathematical Statistics, the International Review of Economics and Finance, the Journal of Applied Econometrics, the Journal of Applied Statistics, the Journal of Banking and Finance, the Journal of Business

and Economic Statistics, the Journal of Climate Change, the Journal of Computational and Graphical Statistics, the Journal of Computational Statistics and Data Analysis, the Journal of Development Economics, the Journal of Econometrics, the Journal of Economic Behavior and Organization, the Journal of Economic Dynamics and Control, the Journal of Economic Education, the Journal of Economic History, the Journal of Economic Integration, the Journal of Economic Studies, the Journal of Economics and Business, the Journal of Empirical Finance, the Journal of Environmental Economics and Management, the Journal of Financial Research, the Journal of Forecasting, the Journal of International Economic Integration, the Journal of International Economics, the Journal of International Money and Finance, the Journal of International Trade and Economic Development, the Journal of the Japanese and International Economies, the Journal of Macroeconomics, the Journal of Monetary Economics, the Journal of Money, Credit and Banking, the Journal of Multivariate Analysis, the Journal of Peace Research, the Journal of Political Economy, the Journal of Quantitative Economics, the Journal of the Royal Statistical Society (Series A), the Journal of the Royal Statistical Society (Series B), Journal of Statistical Computation and Simulation, the Journal of Statistical Planning and Inference, Journal of Time Series Analysis, the Manchester School, Nova Economia, Oxford Bulletin of Economics and Statistics, Oxford Economic Papers, Public Finance Review, Quantitative Finance, the Quarterly Journal of Business and Economics, the Quarterly Journal of Economics, the Quarterly Review of Economics and Finance, the Review of Economic and Statistics, The Review of Economic Studies, the Review of Financial Economics, the Review of International Economics, Revista de Econometria, Sankhya, the Scandinavian Journal of Economics, the Scandinavian Journal of Statistics, Social Science Quarterly, the Southern Economic Journal, Statistics and Probability Letters, World Development.

Grant Agencies: Fonds pour la Formation de Chercheurs et l'Aide à la Recherche du Québec, Social Sciences and Humanities Research Council of Canada, Natural Sciences and Engineering Council of Canada, National Science Foundation, The Economic and Social Research Council (U.K.), Research Grants Council of Hong Kong, ESRC (United Kingdom).

Publishers: Basil Blackwell Publishers, Harper and Row Publishers, MIT Press, Addison Wesly Longman.

Member of the Program Committee of: The 1994 Summer Meeting of the Econometric Society, Québec; The 1995 World Meeting of the Econometric Society, Tokyo; The 1996 Summer Meeting of the Econometric Society, Iowa City. The 2004 Summer Meeting of the Econometric Society, Providence, RI. The 2007 Latin American Econometric Society Meeting, Bogota, Columbia. Co-Chair of the program committee of the 2009 North American Summer Meeting of the Econometric Society (Boston, June 4-7, 2009).

Member of the: American Economic Association, Econometric Society, American Finance Association, American Statistical Association, Canadian Economic Association, Institute of Mathematical Statistics, Société Canadienne de Sciences Économiques (1986-2002).

AWARDS, HONOURS AND SCHOLARSHIPS

- According to Web of Science, the only author with 3 papers in the top 40 most cited papers in *Econometrica* published since 1950: #17 (published in 1989), #28 (published in 1998), #36 (published in 2001).
- A special conference was held on March 14-15, 2019, at Boston University, the pi-day conference, to celebrate my 60th birthday with former and current students, colleagues, co-authors and some friends. A proceeding is planned as a special issue of the *Journal of Econometrics* Special thank to the Department of Economics and IED at Boston University for help in funding this event.
- Ranked 104th overall in REPEC; 4th in Time Series Econometrics.
- Reached 50,000 Google cites on 2/17/2017; 60,000 on 6/7/2019.
- The 1988 Biometrika paper "Testing for a Unit Root in Time Series Regression" crossed the 10,000 number of Google cites in 2014, and 15,000 in 2017. It is the 3rd highest ranked paper in the history of the journal; see D.M. Titteington (2013), "Biometrika highlights from volume 28 onwards", Biometrika 100, 17-73.
- Elected Fellow of the International Association for Applied Econometrics (2019).
- Elected Fellow of the Econometric Society (2007).
- Original Member, Highly Cited Researcher in the categories "Mathematics" and "Business/Economics", ISI Thomson Scientific.
- Fellow of the Journal of Econometrics (1999).
- Editorial Fellow of *Econometrics Reviews* (2018).
- Presentation of the 1998 Jacob Marshack Lecture of the *Econometric Society* at the Latin American Meeting in Lima, Peru (August 14, 1998).
- Econometric Theory Multa Scripsit Award (November 1996); Econometric Theory Plura Scripsit Award (November 2008).
- Prix Triennal de la Société Canadienne de Sciences Économiques, 1994 (Prize awarded every three years for outstanding research contributions).
- The paper "Fractional Unit Root Tests Allowing for a Structural Change in Trend under Both the Null and Alternative Hypotheses" (with Seong Yeon Chang), *Econometrics* 5 (2017), 5, 1-26, won the Best Paper Award for 2018; for papers published between 1 January 2016 and 31 December 2017 in the journal *Econometrics*. See https://www.mdpi.com/2225-1146/6/3/38/htm.

- The 2017 JTSA paper with Francisco Estrada was included by Wiley-statistics as part of a small collection of papers made open access to celebrate *European Statistics Day* focusing on the theme of 'Better Data. Better Lives' (http://www.statisticsviews.com/details/news/10668209/Celebrate-European-Statistics-Day.html). 2017.
- Listed in Who's Who in Economics: A Biographical Dictionary of Major Economists 1700 to 1995, edited by M. Blaug, 1999 Edwin Elgar Publishing.
- 1982-1986: Graduate School Alumni Association Fellow in Economics (Yale University), Yale University Scholarship, Social Sciences and Humanities Research Council of Canada Scholarship (S.S.H.R.C.).
- 1981-1982: S.S.H.R.C. Special M.A. Scholarship, Queen's University Bursary.
- 1979-1981: The Allan Oliver Gold Medal in Economics, the Cherry Prize in Economics, the James McGill Award, the June Redpath Exhibition Award, the McDonald Scholarship, the M.H. Betty Bursary, University Scholar, Faculty Scholar (all from McGill University).

CITATIONS:

The following figures are from Google Scholar as of January 27, 2020:

- Total number of cites: 64,152. The addition to the number of cites in 2019 was 5,041.
- Papers with 15,000+ cites: 1; 8,000-10,00: 1; 4,000-6,000: 3; 2,000-3,000: 2; 1,000-1,999: 4; 500-1,000: 7; 200-499: 10; 100-199: 14.
- Total number of cites from the SSCI in 2018: 1,665; 2017: 1,735; 2016: 1445; in 2015: 1297; in 2014: 1183; 2013: 1210; in 2012: 1,124; in 2011: 814.

GRANTS: 2007-2010: National Science Foundation, "Structural Changes, Level Shifts in Variance and the Frequency of Permanent Shocks", Grant SES-0649350, \$216,126. 2000-2003: National Science Foundation, "Multiple Structural Changes with Deterministic and Stochastic Trends", Grant SES-0078492, \$227,449. 1999-2002: Fonds pour la Formation de Chercheurs et l'Aide à la Recherche du Québec (with Bryan Campbell, Marcel Dagenais, Jean-Marie Dufour, Nour Medahi, Roch Roy): "Problèmes d'économétrie des séries chronologiques en macroéconomie et en finance", \$197,000 (CAN). 1996-1999: Social Sciences and Humanities Research Council of Canada. 1996-2000: Natural Sciences and Engineering Council of Canada. 1996-1999: Fonds pour la Formation de Chercheurs et l'Aide à la Recherche du Québec (with Marcel Dagenais, Jean-Marie Dufour, Eric Ghysels, Marc Hallin and Serena Ng). 1993-1994: Programme d'Analyses et de Recherches Économiques Appliquées au Développement International (PARADI), A.C.D.I. 1993-1996: Social Sciences and Humanities Research Council of Canada. 1993-1996: Natural Sciences and Engineering Council of Canada. 1993-1996: Fonds pour la Formation de Chercheurs et l'Aide à la

Recherche du Québec (with Marcel Dagenais, Jean-Marie Dufour, Eric Ghysels, Alastair Hall and Marc Hallin). 1992-1993: CAFIR (Université de Montréal). 1991-1993: National Science Foundation. 1990-1993: Fonds pour la Formation de Chercheurs et l'Aide à la Recherche du Québec (with Jean-Marie Dufour, Eric Ghysels, Alastair Hall, Marc Hallin and Victoria Zinde-Walsh). 1989-1991: Social Sciences and Humanities Research Council of Canada (with Jean-Marie Dufour). 1988-1991: Natural Sciences and Engineering Council of Canada. 1987-1990: Fonds pour la Formation de Chercheurs et l'Aide à la Recherche du Québec (with Jean-Marie Dufour and Eric Ghysels). 1987-1989: Social Sciences and Humanities Research Council of Canada (with Jean-Marie Dufour). 1986-1987: CAFIR (Université de Montréal).

REFEREED JOURNAL ARTICLES

- 1. "Testing the Random Walk Hypothesis: Power versus Frequency of Observation," *Economics Letters* 18 (1985), 381-386 (with Robert J. Shiller). Reprinted in *The International Library of Financial Econometrics*, A.W. Lo and S.T. Harris (eds.), Edward Elgar Publishing Ltd (2007).
- 2. "Does GNP Have a Unit Root? A Reevaluation," *Economics Letters* 23 (1987), 139-145 (with Peter C.B. Phillips).
- 3. "Trends and Random Walks in Macroeconomic Time Series: Further Evidence from a New Approach," *Journal of Economic Dynamics and Control* 12 (1988), 297-332.
- 4. "Testing for a Unit Root in Time Series Regression," *Biometrika* 75 (1988), 335-346 (with Peter C.B. Phillips). Reprinted in *Time Series Econometrics* (T.C. Mills, ed.), *Critical Concepts in Economics*, Routledge, 2015.
- 5. "The Calculation of the Limiting Distribution of the Least-Squares Estimator in a Near-Integrated Model," *Econometric Theory* 5 (1989), 241-255.
- 6. "The Great Crash, the Oil Price Shock and the Unit Root Hypothesis," Econometrica 57 (1989), 1361-1401. Reprinted in Long Term Trends and Business Cycles (T. C. Mills, ed.), The International Library of Critical Writings in Economics (Series Editor: Mark Blaug), Edward Elgar Publishing (2002). Reprinted in Time Series Econometrics (T.C. Mills, ed.), Critical Concepts in Economics, Routledge, 2015.
- 7. "Tests of Joint Hypotheses in Time Series Regression with a Unit Root," in Advances in Econometrics: Co-integration, Spurious Regression and Unit Roots, Vol. 8, G.F. Rhodes and T.B. Fomby (eds.), JAI Press (1990), 135-159.
- 8. "Testing for a Unit Root in a Time Series Regression with a Changing Mean," *Journal of Business and Economic Statistics* 8 (1990), 153-162.
- 9. "A Continuous Time Approximation to the Unstable First-order Autoregressive Model: the Case Without an Intercept," *Econometrica* 59 (1991), 211-236.

- 10. "A Continuous Time Approximation to the Stationary First-order Autoregressive Model," Econometric Theory 7 (1991), 236-252.
- 11. "Test Consistency with Varying Sampling Frequency," *Econometric Theory* 7 (1991), 341-368.
- 12. "Pitfalls and Opportunities: What Macroeconomists Should Know About Unit Roots," *NBER Macroeconomics Annual*, Vol. 6 (1991), O.J. Blanchard and S. Fisher (eds.) (with John Y. Campbell), 141-201.
- 13. "Nonstationarity and Level Shifts with an Application to Purchasing Power Parity," (with T.J. Vogelsang), Journal of Business and Economic Statistics 10 (1992), 301-320.
- 14. "The Limiting Distribution of the Least-Squares Estimator in Nearly Integrated Seasonal Models," Canadian Journal of Statistics 20 (1992), 121-134.
- 15. "Racines Unitaires en Macroéconomie: Le Cas Multidimensionnel," (with John Y. Campbell), Annales d'Économie et de Statistique 27 (1992), 1-50.
- 16. "Testing for a Unit Root in a Time Series with a Changing Mean: Corrections and Extensions," (with T.J. Vogelsang), *Journal of Business and Economic Statistics* 10 (1992), 467-470.
- 17. "The Effect of Seasonal Adjustment Filters on Tests for a Unit Root," (with Eric Ghysels) *Journal of Econometrics* 55 (1993), 57-98.
- 18. "Racines Unitaires en Macroéconomie: Le Cas d'une Variable," *Actualité Économique* 68 (1992), 325-356; Reprinted in *Macroéconomie: Développements Récents*, P. Malgrange and L. Salvas-Bronsard (eds.), Presses de l'Université du Québec (1993).
- 19. "The Great Crash, the Oil Price Shock and the Unit Root Hypothesis: Erratum," (with T.J. Vogelsang) *Econometrica* 61 (1993), 248-249.
- 20. "The Humped Shaped Behavior of Macroeconomic Fluctuations," *Empirical Economics* 18 (1993) (special issue), 707-727; Reprinted in *New Developments in Time Series Econometrics*, J.-M. Dufour and B. Raj (eds.), Physica-Verlag Heidelberg (1994), 151-171.
- 21. "A Note on Johansen's Cointegration Procedure when Trends are Present," (with John Y. Campbell), *Empirical Economics* (special issue), 18 (1993), 777-789; Reprinted in *New Developments in Time Series Econometrics*, J.-M. Dufour and B. Raj (eds.), Physica-Verlag Heidelberg, 221-233.
- 22. "A Note on the Asymptotic Distributions of Unit Root Tests in the Additive Outlier Model with Breaks," (with T.J. Vogelsang), Revista de Econometria 13 (1993), 181-201.

- 23. "Local Asymptotic Distribution Related to the AR(1) Model with Dependent Errors," (with Seiji Nabeya), *Journal of Econometrics* 62 (1994), 229-264.
- 24. "Unit Root Tests in ARMA Models With Data Dependent Methods for Selection of the Truncation Lag," (with Serena Ng), Journal of the American Statistical Association 90 (1995), 268-281. Reprinted in Recent Developments in Time Series (P. Newbold and S.J. Leybourne, eds.), The International Library of Critical Writings in Econometrics (Series Editors: M. Blaug and A. Darnell), Edward Elgar Publishing (2003).
- 25. "Approximations to Some Exact Distributions in the First Order Autoregressive Model with Dependent Errors," (with Seiji Nabeya), Econometric Reviews 14 (1995), 421-457.
- 26. "The Effect of Linear Filters on Dynamic Time Series with Structural Change," (with Eric Ghysels), *Journal of Econometrics* 70 (1996), 69-97.
- 27. "The Adequacy of Asymptotic Approximations in the Near-Integrated Autoregressive Model with Dependent Errors," *Journal of Econometrics* 70 (1996), 317-350.
- 28. "An Analysis of the Real Interest Rate under Regime Shifts," (with René Garcia), Review of Economics and Statistics 78 (1996), 111-125.
- 29. "Useful Modifications to Some Unit Root Tests with Dependent Errors and Their Local Asymptotic Properties," (with Serena Ng), Review of Economic Studies 63 (1996), 435-463.
- 30. "The Exact Error in Estimating the Spectral Density at the Origin," (with Serena Ng), Journal of Time Series Analysis 17 (1996), 379-408.
- 31. "Estimation and Inference in Nearly Unbalanced Nearly Cointegrated Systems," (with Serena Ng), *Journal of Econometrics* 79 (1997), 53-81.
- 32. "Further Evidence from Breaking Trend Functions in Macroeconomic Variables," *Journal of Econometrics* 80 (1997), 355-385.
- 33. "L'estimation de modèles avec changements structurels multiples", Actualité Économique 73 (1997), 457-505 (special issue in honour of Lise Salvas Bronsard).
- 34. "Estimating and Testing Linear Models with Multiple Structural Changes," (with Jushan Bai), Econometrica 66 (1998), 47-78. Reprinted in The Economics of Structural Change (H. Hagemann, M. Landesmann, and R. Scazzieri, eds.), The International Library of Critical Writings in Economics (Series Editor: Mark Blaug), Edward Elgar Publishing (2003). Also reprinted in Recent Developments in Time Series (P. Newbold and S.L. Leybourne, eds.) The International Library of Critical Writings in Econometrics (Series Editors: Mark Blaug and Adrian Darnell), Edward Elgar Publishing (2003).

- 35. "An Autoregressive Spectral Density Estimator at Frequency Zero for Nonstationarity Tests," (with Serena Ng), *Econometric Theory* 14 (1998), 560-603.
- 36. "Additional Tests for a Unit Root Allowing the Possibility of Breaks in the Trend Function," (with T.J. Vogelsang), International Economic Review 39 (1998), 1073-1100. Reprinted in Recent Developments in Time Series (P. Newbold and S.J. Leybourne, eds.), The International Library of Critical Writings in Econometrics (Series Editors: M. Blaug and A. Darnell), Edward Elgar Publishing (2003).
- 37. "Unit Roots in the Presence of Abrupt Governmental Interventions with an Application to Brazilian Data," (with Regina C. Cati and Marcio G.P. Garcia), *Journal of Applied Econometrics* 14 (1999), 27-56.
- 38. "A Look at the Quality of the Approximation of the Functional Central Limit Theorem," (with Sylvie Mallet) *Economics Letters* 68 (2000), 225-234.
- 39. "Asymptotic Approximations in the Near-Integrated Model with a Non-zero Initial Condition," (with Cosme Vodounou) *Econometrics Journal* 4 (2001), 143-169.
- 40. "Lag Length Selection and the Construction of Unit Root Tests With Good Size and Power," (with Serena Ng), *Econometrica 69* (2001), 1519-1554. Reprinted in *Time Series Econometrics* (T.C. Mills, ed.), *Critical Concepts in Economics*, Routledge, 2015.
- 41. "PPP May Not Hold After All: A Further Investigation," (with Serena Ng), Annals of Economics and Finance 3 (2002), 43-64.
- 42. "Computation and Analysis of Multiple Structural Change Models," (with Jushan Bai), Journal of Applied Econometrics 18 (2003), 1-22.
- 43. "Searching for Additive Outliers in Nonstationary Time Series," (with Gabriel H. Rodriguez), Journal of Time Series Analysis 24 (2003), 193-220.
- 44. "GLS Detrending, Efficient Unit Root Tests and Structural Change," (with Gabriel H. Rodríguez), *Journal of Econometrics* 115 (2003), 1-27. Reprinted in Spanish as: "GLS para eliminiar los componentes determinísticos, estadísticos de raíz unitaria eficientes y cambio estructural," *Economía* 35 (2012), 174-203.
- 45. "Critical Values for Multiple Structural Change Tests," (with Jushan Bai), *Econometrics Journal* 6 (2003), 72-78.
- 46. "Tests of Return Predictability: An Analysis of Their Properties based on a Continuous Time Asymptotic Framework," (with Cosme Vodounou), *Journal of Empirical Finance*, 11 (2004), 203-230.
- 47. "A Note on the Selection of Time Series Models," (with Serena Ng), Oxford Bulletin of Economics and Statistics 67 (2005), 115-134.

- 48. "The Variance Ratio Test: An Analysis of Size and Power based on a Continuous Time Asymptotic Framework," (with Cosme Vodounou), *Econometric Theory* 21 (2005), 562-592.
- 49. "Structural Breaks with Stochastic and Deterministic Trends," (with Xiaokang Zhu), Journal of Econometrics 129 (2005), 65-119.
- 50. "Estimating Restricted Structural Change Models," (with Zhongjun Qu) Journal of Econometrics 134 (2006), 373-399.
- 51. "A Comparison of Alternative Asymptotic Frameworks to Analyze a Structural Change in a Linear Time Trend," (with Ai Deng), *Econometrics Journal* 9 (2006), 423-447.
- 52. "A Simple Modification to Improve the Finite Sample Properties of Ng and Perron's Unit Root Tests," (with Zhongjun Qu), *Economics Letters* 94 (2007), 12-19.
- 53. "Estimating and Testing Multiple Structural Changes in Multivariate Regressions" (with Zhongjun Qu), *Econometrica* 75 (2007), 459-502 (with online supplement).
- 54. "A Modified Information Criterion for Cointegration Tests based on a VAR Approximation" (with Zhongjun Qu), *Econometric Theory* 23 (2007), 638-685.
- 55. "A Non-local Perspective on the Power Properties of the CUSUM and CUSUM of Squares Tests for Structural Change" (with Ai Deng), *Journal of Econometrics* 142 (2008), 212-240.
- 56. "The Limit Distribution of the CUSUM of Squares Test Under General Mixing Conditions" (with Ai Deng), *Econometric Theory* 24 (2008), 809-822.
- 57. "Data Dependent Rules for Selection of the Number of Leads and Lags in the Dynamic OLS Cointegrating Regression" (with Mohitosh Kejriwal), *Econometric Theory* 24 (2008), 1425-1441.
- 58. "The Limit Distribution of the Estimates in Cointegrated Regression Models with Multiple Structural Changes," (with Mohitosh Kejriwal), *Journal of Econometrics* 146 (2008), 59-73.
- 59. "Unit Root Tests Allowing for a Break in the Trend Function Under Both the Null and Alternative Hypotheses," (with Dukpa Kim), Journal of Econometrics 148 (2009), 1-13. Reprinted in Time Series Econometrics (T.C. Mills, ed.), Critical Concepts in Economics, Routledge, 2015.
- 60. "Assessing the Relative Power of Structural Break Tests Using a Framework Based on the Approximate Bahadur Slope," (with Dukpa Kim), *Journal of Econometrics* 149 (2009), 26-51.

- 61. "Estimating Deterministic Trends with an Integrated or Stationary Noise Component" (with Tomoyoshi Yabu), Journal of Econometrics 151 (2009), 56-69.
- 62. "Testing for Shifts in Trend with an Integrated or Stationary Noise Component, (with Tomoyoshi Yabu), Journal of Business and Economic Statistics 27 (2009), 369-396.
- 63. "Let's Take a Break: Trends and Cycles in U.S. Real GDP" (with Tatsuma Wada), Journal of Monetary Economics 56 (2009), 749-765 (with online supplement).
- 64. "GLS-based Unit Root Tests with Multiple Structural Breaks both Under the Null and the Alternative Hypotheses," (with Josep Lluís Carrion-i-Silvestre and Dukpa Kim), *Econometric Theory* 25 (2009), 1754-1792.
- 65. "Modeling and Forecasting Stock Return Volatility Using a Random Level Shift Model," (with Yang K. Lu), *Journal of Empirical Finance* 17 (2010), 138-156.
- 66. "Long-Memory and Level Shifts in the Volatility of Stock Market Return Indices," (with Zhongjun Qu), Journal of Business and Economic Statistics (2010) 28, 275-290.
- 67. "A Sequential Procedure to Determine the Number of Breaks in Trend with an Integrated or Stationary Noise Component," (with Mohitosh Kejriwal), *Journal of Time Series Analysis* 31 (2010), 305-328.
- 68. "Testing for Multiple Structural Changes in Cointegrated Regression Models," (with Mohitosh Kejriwal), *Journal of Business and Economic Statistics* 28 (2010), 503-522.
- 69. "On the Irrelevance of Impossibility Theorems: The Case of the Long-run Variance" (with Linxia Ren), *Journal of Time Series Econometrics*, vol. 3 (Article 1) (2011), 1-32.
- 70. "A Note on Estimating a Structural Change in Persistence," (with Mohitosh Kejriwal), *Economics Letters* 117 (2012), 932-935.
- 71. "Comparisons of Robust Tests for Shifts in Trend with an Application to Trend Deviations of Real Exchange Rates in the Long Run," (with Sungju Chun), Applied Economics 45 (2013), 3512-3528.
- 72. "Sampling Interval and Estimated Betas: Implications for the Presence of Transitory Components in Stock Returns," (with Sungju Chun and Cosme Vodounou), *Journal of Empirical Finance* 20 (2013), 42-62.
- 73. "Wald Tests for Detecting Multiple Structural Changes in Persistence," (with Mohitosh Kejriwal and Jing Zhou), *Econometric Theory* 29 (2013), 289-323.
- 74. "A Time-series Analysis of the 20th Century Climate Simulations Produced for the IPCC's AR4," (with Francisco Estrada, Carlos Gay-García and Benjamín Martínez-López), *PLoS ONE* 8(3) (2013), e60017.

- 75. "Memory Parameter Estimation in the Presence of Level Shifts and Deterministic Trends" (with Adam McCloskey), *Econometric Theory* 29 (2013), 1196-1237.
- 76. "A Stochastic Volatility Model with Random Level Shifts and its Application to S&P 500 and NASDAQ Return Indices," (with Zhongjun Qu), *Econometrics Journal* 16 (2013), 309-339.
- 77. "Estimating and Testing Multiple Structural Changes in Linear Models Using Band Spectral Regressions" (with Yohei Yamamoto), *Econometrics Journal* 16 (2013), 400-429.
- 78. "Statistically-derived Contributions of Diverse Human Influences to 20th Century Temperature Changes" (with Francisco Estrada and Benjamin Martinez-López), *Nature Geoscience* 6 (2013), 1050-1055 (doi:10.1038/ngeo1999 with Supplementary Material, 41 pages).
- 79. "A Note on Estimating and Testing for Multiple Structural Changes in Models with Endogenous Regressors via 2SLS," (with Yohei Yamamoto), *Econometric Theory* 30 (2014), 491-507.
- 80. "Forecasting Return Volatility: Level Shifts with Varying Jump Probability and Mean Reversion," (with Jiawen Xu), *International Journal of Forecasting* 30 (2014), 449-463.
- 81. "Detection and Attribution of Climate Change Through Econometric Methods," (with Francisco Estrada), Buletin de la Sociedad Matematica Mexicana 20 (2014), 107-136.
- 82. "Modified Local Whittle Estimator for Long Memory Processes in the Presence of Low Frequency (and Other) Contaminations," (with Jie Hou), *Journal of Econometrics* 182 (2014), 309-328.
- 83. "Using OLS to Estimate and Test for Structural Changes in Models with Endogenous Regressors," (with Yohei Yamamoto), *Journal of Applied Econometrics* 30 (2015), 119-144.
- 84. "On the Usefulness or Lack Thereof of Optimality Criteria for Structural Change Tests," (with Yohei Yamamoto), *Econometric Reviews* 35 (2016), 782-844.
- 85. "Residuals-based Tests for Cointegration with GLS Detrended Data," (with Gabriel Rodriguez), *Econometrics Journal* 19 (2016), 84-111.
- 86. "Inference on a Structural Break in Trend with Fractionally Integrated Errors," (with Seong Yeon Chang), *Journal of Time Series Analysis* 37 (2016), 555-574.
- 87. "Measuring Business Cycles with Structural Breaks and Outliers: Applications to International Data," (with Tatsuma Wada), Research in Economics 70 (2016), 281-303.

- 88. "Improved Tests for Forecast Comparisons in the Presence of Instabilities" (with Luis Filipe Martins), *Journal of Time Series Analysis* 37 (2016), 650-659.
- 89. "Inference on Locally Ordered Breaks in Multiple Regressions," (with Ye Li), Econometric Reviews 36 (2017), 289-353.
- 90. "Fractional Unit Root Tests Allowing for a Structural Change in Trend under Both the Null and Alternative Hypotheses" (with Seong Yeon Chang), *Econometrics* 5 (2017), 5, 1-26. Reprinted in *Unit Root and Structural Breaks*, P. Perron (ed.). MPDI, Basel, Switzerland, 2018.
- 91. "Modelling Exchange Rate Volatility with Random Level Shifts," (with Ye Li and Jiawen Xu), *Applied Economics* 49 (2017), 2579-2589.
- 92. "Characterizing and Attributing the Warming Trend in Sea and Land Surface Temperatures," (with Francisco Estrada and Luis Filipe Martins), *Atmosfera* 30 (2017), 163-187.
- 93. "Extracting and Analyzing the Warming Trend in Global and Hemispheric Temperatures" (with Francisco Estrada), *Journal of Time Series Analysis* 38 (2017), 711-732.
- 94. "Testing for Flexible Nonlinear Trends with an Integrated or Stationary Noise Component," (with Mototsugu Shintani and Tomoyoshi Yabu), Oxford Bulletin of Economics and Statistics 79 (2017), 822-850.
- 95. "Combining Long Memory and Level Shifts in Modeling and Forecasting the Volatility of Asset Returns" (with Rasmus T. Varneskov), *Quantitative Finance* 18 (2018), 371-393 (with supplement).
- 96. "Testing for Common Breaks in a Multiple Equations System," (with Tatsushi Oka), Journal of Econometrics 204 (2018), 66-85.
- 97. "A Comparison of Alternative Methods to Construct Confidence Intervals for the Estimate of a Break Date in Linear Regression Models," (with Seong Yeon Chang), *Econometric Reviews* 37 (2018), 577-601.
- 98. "Causality from Long-lived Radiative Forcings to the Climate Trend" (with Francisco Estrada), Annals of the New York Academy of Sciences 1436 (2019), 195-205.
- 99. "Pitfalls of Two Step Testing for Changes in the Error Variance and Coefficients of a Linear Regression Model," (with Yohei Yamamoto), *Econometrics* 7 (2019), 22; doi:10.3390/econometrics7020022.
- 100. "Breaks, Trends and the Attribution of Climate Change: a Time-series Analysis" (with Francisco Estrada), *Economia* 42 (2019), 1-31.

101. "Inference Related to Common Breaks in a Multivariate System with Joined Segmented Trends with Applications to Global and Hemispheric Temperatures" (with Dukpa Kim, Tatsushi Oka and Francisco Estrada), *Journal of Econometrics* 214 (2020), 130-152.

BOOKS EDITED

- 1. Unit Root and Structural Breaks, P. Perron (ed.). MPDI, Basel, Switzerland, 2018.
- 2. Time Series Econometrics: Volume 1: Unit Roots and Trend Breaks, (Perron, P., ed.), World Scientific, 2019 (with a new introduction), 743 pages.
- 3. Time Series Econometrics: Volume 2: Structural Change, (Perron, P., ed.), World Scientific, 2019 (with a new introduction), 948 pages.

BOOK CHAPTERS

- 1. "Testing for a Random Walk: A Simulation Experiment of Power when the Sampling Interval is Varied," in *Advances in Econometrics and Modeling*, Baldev Raj (ed.), Kluwer Academic Publisher (1989), 47-68.
- "Comments on: A Nine Variable Probabilistic Macroeconomic Forecasting Model by Christopher Sims," in *Business Cycles, Indicators and Forecasting*, J.H. Stock and M.W. Watson (eds.), NBER Studies in Business Cycles, Vol. 28 (1993), The University of Chicago Press, 204-212.
- 3. "Nonstationarities and Nonlinearities in Canadian Inflation," in *Economic Behavior* and *Policy Choice under Price Stability*, Bank of Canada, 1994, 235-291 (Also available in french as "Non-stationnarités et non-linéarités dans le processus d'inflation au Canada," in *Comportement des agents économiques et formulation des politiques en régime de stabilité des prix*, Banque du Canada, 1994, 267-327).
- 4. "Trend, Unit Root and Structural Change in Macroeconomic Time Series," in *Cointegration for the Applied Economist*, B.B. Rao (ed.), 1994, Basingstoke: Macmillan Press, 113-146.
- 5. "Multiple Structural Change Models: A Simulation Analysis," in *Econometric Theory* and *Practice: Frontiers of Analysis and Applied Research*, (with Jushan Bai), D. Corbea, S. Durlauf and B. E. Hansen (eds.), Cambridge University Press, 2006, 212-237.
- 6. "Dealing with Structural Breaks," in *Palgrave Handbook of Econometrics*, Vol. 1: Econometric Theory, K. Patterson and T.C. Mills (eds.), Palgrave Macmillan, 2006, 278-352.
- 7. "Structural Change" in *The New Palgrave Dictionary of Economics*, 2nd ed, S. Durlauf and L. Blume (eds.), 2008, Palgrave Macmillan. Also in *Macroeconometrics and Time Series Analysis*, S. Durlauf and L. Blume (eds.), 2010, Palgrave Macmillan.

- 8. "A Test for Changes in a Polynomial Trend Function for a Dynamic Time Series," in *Time Series Econometrics: Volume 2: Structural Change*, (Perron, P., ed.), World Scientific, 2019, 1-65.
- 9. "Introduction" in *Time Series Econometrics: Volume 1: Unit Roots and Trend Breaks*, (Perron, P., ed.), World Scientific, 2019, xiii-xx.
- 10. "Introduction" in *Time Series Econometrics: Volume 2: Structural Change*, (Perron, P., ed.), World Scientific, 2019, xiii-xxii.
- 11. "Structural Breaks in Time Series". In Oxford Research Encyclopedia of Economics and Finance. Oxford University Press, 2019 (with Alessandro Casini). doi: http://dx.doi.org/10.1093/acrefore/9780190625979.013.179.

COMMENTS (REFEREED)

- 1. "Statistical Adequacy and the Testing of Trend versus Difference Stationarity: Some Comments," *Econometric Reviews* 22 (2003), 239-245.
- 2. "Testing for Trend in the Presence of Autoregressive Error: A Comment" (with Tomoyoshi Yabu), Journal of the American Statistical Association 107 (2012), 844 (with online supplement).
- 3. "Comments on "In-sample Confidence Bands and Out-of-sample Forecast Bands for Time-varying Parameters in Observation Driven Models" (with Jiawen Xu), *International Journal of Forecasting* 32 (2016), 891-892.

EDITORIALS

- 1. "Royal Economic Society Annual Conference 2009 Special Issue on Factor Models: Theoretical and Applied Perspectives" (with Richard Smith), *The Econometrics Journal 14.1* (2011), Ci-Ciii.
- 2. "Editorial: Unit Roots and Structural Breaks," Econometrics 5 (2017), 22, 1-3.
- 3. "Editorial: Time Series Methods Applied to Climate Change," (with Eduardo Zorita), Journal of Time Series Analysis 38 (2017), 69.

PROCEEDINGS

1. "Trend, Unit Root and Structural Change: A Multi-Country Study with Historical Data," *Proceedings of the Business and Economic Statistics Section*, American Statistical Association, 1992, 144-149.

ARTICLES FORTHCOMING

- 1. "Testing for Changes in Forecasting Performance," (with Yohei Yamamoto), forthcoming in the *Journal of Business and Economic Statistics* (with online supplement).
- 2. "Testing Jointly for Structural Changes in the Error Variance and Coefficients of a Linear Regression Model," (with Yohei Yamamoto and Jing Zhou), forthcoming in *Quantitative Economics* (with online supplement).
- 3. "Bootstrap Procedures for Detecting Multiple Persistence Shifts in Heteroskedastic Time Series," (with Mohitosh Kejriwal and Xuewen Xu), forthcoming in the *Journal of Time Series Analysis* (with online supplement).
- 4. "Continuous Record Laplace-based Inference about the Break Date in Structural Change Models." (with Alessandro Casini), forthcoming in the *Journal of Econometrics* (with online supplement).

PAPERS SUBMITTED OR UNDER REVISION

- 1. "Continuous Record Asymptotics for Change-Point Models," (with Alessandro Casini), November 2017; Revised March 2020, submitted.
- 2. "Generalized Laplace Inference in Multiple Change-Points Models" (with Alessandro Casini), March 2018, revised March 2020, submitted.
- 3. "Forecasting in the Presence of In and Out of Sample Breaks," (with Jiawen Xu), Revised November 2018, under revision.
- "The Great Moderation: Updated Evidence with Joint Tests for Multiple Structural Changes in Variance and Persistence," (with Yohei Yamamoto), February 2020, submitted.
- 5. "A Two Step Procedure for Testing Partial Parameter Stability in Cointegrated Regression Models," (with Mohitosh Kejriwal and Xuewen Xu), January 2020, submitted.
- "Trigonometric Trend Regressions of Unknown Frequencies with Stationary or Integrated Noise," (with Mototsugu Shintani and Tomoyoshi Yabu), January 2020, submitted.
- 7. "Spatial Variations in the Warming Trend and the Transition to More Severe Weather in Midaltitudes," (with Francisco Estrada and Dukpa Kim), February 2020, submitted.
- 8. "Inference on Conditional Quantile Processes in Partially Linear Models with Applications to the Impact of Unemployment Benefits," (with Zhongjun Qu and Jungmo Yoon), May 2020.
- 9. "Anthropogenic Influence in Observed Regional Warming Trends" (with Francisco Estrada and Dukpa Kim), May 2020, submitted.

10. "Robust Testing of Time Trend and Mean with Unknown Integration Order Errors," (with Seong Yeon Chang and Jiawen Xu), February 2019, revised May 2020.

OTHER DOCUMENTS PRODUCED

- 1. "Temporal Aggregation, Bandwidth Selection and Long Memory for Volatility Models" (with Wendong Shi), June 2014.
- 2. "An Analytical Evaluation of the Log-periodogram Estimate in the Presence of Level Shifts," (with Zhongjun Qu), June 2004, revised November 2007.
- 3. "Macroeconomics and the Canadian Income-Security System: An Overview," Discussion Paper No. 336, Economic Council of Canada, September 1987.
- 4. "The Evolution of Poverty in Canada, 1970-1985," Discussion Paper No. 343, Economic Council of Canada, February 1988 (with François Vaillancourt).

ARTICLES REPRINTED (CHAPTER IN BOOKS OR OTHER JOURNALS)

- 1. "Testing the Random Walk Hypothesis: Power versus Frequency of Observation," *Economics Letters* 18 (1985), 381-386 (with Robert J. Shiller). Reprinted in *The International Library of Financial Econometrics*, A.W. Lo and S.T. Harris (eds.), Edward Elgar Publishing Ltd (2007).
- 2. "Testing for a Unit Root in Time Series Regression," Biometrika 75 (1988), 335-346 (with Peter C.B. Phillips). Reprinted in Time Series Econometrics (T.C. Mills, ed.), Critical Concepts in Economics, Routledge, 2015.
- 3. The Great Crash, the Oil Price Shock and the Unit Root Hypothesis," *Econometrica* 57 (1989), 1361-1401. Reprinted in *Long Term Trends and Business Cycles* (T. C. Mills, ed.), *The International Library of Critical Writings in Economics* (Series Editor: Mark Blaug), Edward Elgar Publishing (2002).
- 4. The Great Crash, the Oil Price Shock and the Unit Root Hypothesis," *Econometrica* 57 (1989), 1361-1401. Reprinted in *Time Series Econometrics* (T.C. Mills, ed.), *Critical Concepts in Economics*, Routledge, 2015.
- 5. "Racines Unitaires en Macroéconomie: Le Cas d'une Variable," *Actualité Économique* 68 (1992), 325-356; Reprinted in *Macroéconomie: Développements Récents*, P. Malgrange and L. Salvas-Bronsard (eds.), Presses de l'Université du Québec (1993).
- "The Humped Shaped Behavior of Macroeconomic Fluctuations," Empirical Economics 18 (1993) (special issue), 707-727; Reprinted in New Developments in Time Series Econometrics, J.-M. Dufour and B. Raj (eds.), Physica-Verlag Heidelberg (1994), 151-171.

- 7. "A Note on Johansen's Cointegration Procedure when Trends are Present," (with John Y. Campbell), *Empirical Economics* (special issue), 18 (1993), 777-789; Reprinted in *New Developments in Time Series Econometrics*, J.-M. Dufour and B. Raj (eds.), Physica-Verlag Heidelberg, 221-233.
- 8. "Unit Root Tests in ARMA Models With Data Dependent Methods for Selection of the Truncation Lag," (with Serena Ng), Journal of the American Statistical Association 90 (1995), 268-281. Reprinted in Recent Developments in Time Series (P. Newbold and S.J. Leybourne, eds.), The International Library of Critical Writings in Econometrics (Series Editors: M. Blaug and A. Darnell), Edward Elgar Publishing (2003).
- 9. "Estimating and Testing Linear Models with Multiple Structural Changes," (with Jushan Bai), Econometrica 66 (1998), 47-78. Reprinted in The Economics of Structural Change (H. Hagemann, M. Landesmann, and R. Scazzieri, eds.), The International Library of Critical Writings in Economics (Series Editor: Mark Blaug), Edward Elgar Publishing (2003).
- 10. "Estimating and Testing Linear Models with Multiple Structural Changes," (with Jushan Bai), Econometrica 66 (1998), 47-78. Reprinted in Recent Developments in Time Series (P. Newbold and S.L. Leybourne, eds.) The International Library of Critical Writings in Econometrics (Series Editors: Mark Blaug and Adrian Darnell), Edward Elgar Publishing (2003).
- 11. "Additional Tests for a Unit Root Allowing the Possibility of Breaks in the Trend Function," (with T.J. Vogelsang), International Economic Review 39 (1998), 1073-1100. Reprinted in Recent Developments in Time Series (P. Newbold and S.J. Leybourne, eds.), The International Library of Critical Writings in Econometrics (Series Editors: M. Blaug and A. Darnell), Edward Elgar Publishing (2003).
- 12. "Lag Length Selection and the Construction of Unit Root Tests With Good Size and Power," (with Serena Ng), *Econometrica 69* (2001), 1519-1554. Reprinted in *Time Series Econometrics* (T.C. Mills, ed.), *Critical Concepts in Economics*, Routledge, 2015.
- 13. GLS Detrending, Efficient Unit Root Tests and Structural Change," (with Gabriel H. Rodriguez), *Journal of Econometrics* 115 (2003), 1-27. Reprinted in Spanish as: "GLS para eliminiar los componentes determinísticos, estadísticos de raíz unitaria eficientes y cambio estructural," *Economía* 35 (2012), 174-203.
- 14. "Unit Root Tests Allowing for a Break in the Trend Function Under Both the Null and Alternative Hypotheses," (with Dukpa Kim), Journal of Econometrics 148 (2009), 1-13. Reprinted in Time Series Econometrics (T.C. Mills, ed.), Critical Concepts in Economics, Routledge, 2015.

15. "Fractional Unit Root Tests Allowing for a Structural Change in Trend under Both the Null and Alternative Hypotheses" (with Seong Yeon Chang), *Econometrics* 5 (2017), 5, 1-26. Reprinted in *Unit Root and Structural Breaks*, P. Perron (ed.). MPDI, Basel, Switzerland, 2018.

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SEMINARS AND CONFERENCES

- "Modeling and Forecasting Stock Return Volatility Using a Random Level Shift Model," Keynote Speaker at the Canadian Econometric Study Group (Montreal, September 28, 2008).
- "On the Usefulness or Lack Thereof of Optimality Criteria for Structural Change Tests," Concordia University (Montreal, September 25, 2008), University of Virginia (May 5, 2009).
- "Estimating and Testing Multiple Structural Changes in Models with Endogenous Regressors", Boston University (September 19, 2008).
- "Testing Jointly for Structural Changes in the Error Variance and Coefficients of a Linear Regression Model," Keynote Speaker at the Latin American Econometric Society Meeting, Bogota, Columbia (October 4, 2007), Workshop on Change-Point Detection Methods and Applications (Paris, AgroParisTech, September 11, 2008), Bates and White Antitrust Conference (Washington, June 1, 2009).
- "GLS-based Unit Root Tests with Multiple Structural Breaks both Under the Null and the Alternative Hypotheses," Keynote Speaker at the conference in honour of the retirement of Paul Newbold, University of Nottingham, September 22, 2007), Seminar at Boston University (September 14, 2007).
- "Multiple Structural Changes in Cointegrated Regression Models: Issues in Estimation and Inference" Duke University (April 26, 2007).

- "Assessing the Relative Power of Structural Break Tetsts Using a Framework Based on the Approximate Bahadur Slope," Keynote Speaker at the Conference "Breaks and persistence in econometrics" (CASS Business School, London, December 12, 2006).
- Let's Take a Break: Trend-Cycle Decompositions in Macroeconomic Time Series," Keynote Speaker at the Conference "New Developments in Macroeconomic Modelling and Growth Dynamics" (Faro, Portugal, September 9, 2006).
- "An Analytical Evaluation of the Log-periodogram Estimate in the Presence of Level Shifts and its Implications for Stock Return Volatility," Boston University (December 10, 2004), Harvard/MIT Econometrics Workshop (December 8, 2005), University of Alabama (March 31, 2006), Keynote speaker at the ESRC Econometric Study Group, Bristol (July 15, 2006), Instituto Superior de Economia e Gestão (ISEG), Universidade Técnica de Lisboa (September 5, 2006), Brown University (November 10, 2006).
- "Structural Breaks with Stochastic and Deterministic Trends," Pontificia Catelica Universidade de Rio de Janeiro, Brazil (June 7, 2002), ITAM, Mexico (October 11, 2002), International Conference on Modelling Structural Breaks, Long Memory and Stock Market Volatility, Cass Business School, City University of London (December 6-7, 2002), Brown University (October 2003).
- "Computation and Analysis of Multiple Structural Change Models," The 1998 Jacob Marschack Lecture of the Econometric Society delivered in Lima, Peru (August 14, 1998), The MIT/Harvard Econometrics Seminar (October 8, 1997), Cornell University (October 27, 1998), Brown University (November 6, 1998), Princeton University (November 24, 1998), Université De Bourgogne (June 11, 1999), University of Zaragoza, Spain (June 15, 1999), University of Valencia, Spain (June 18, 1999), Pontificia Catelica Universidade de Rio de Janeiro, Brazil (June 2, 2000), Fondação Getulio Vargas, Rio de Janeiro, Brazil (June 8, 2000), Universidade de São Paulo, Brasil (June 15, 2000), University of Houston/Rice (September 22, 2000).
- "The FCLT with Dependent Errors: An Helicopter Tour of the Quality of the Approximation," XX Encontro Brasileiro de Econometria, Vitoria, Brasil (December 14, 1998).
- "Sampling Interval and Estimated Betas: Implications for the Presence of Transitory Components in Stock Returns," Boston University (October 7, 1998).
- "GLS Detrending, Efficient Unit Root Tests and Structural Change," Latin American Meeting of the Econometric Society, Lima, Peru (August 13, 1998).
- "Lag Length Selection and the Construction of Unit Root Tests with Good Size and Power," Pontificia Catelica Universidade de Rio de Janeiro, Brazil (June 26, 1998), University of Barcelona, Spain (June 21, 1999), Texas A&M University (September 21, 2000), University of California at Los Angeles (December 5, 2000).

- "Constructing Unit Root Tests with Good Size and Power," Pontificia Catelica Universidade de Rio de Janeiro, Brazil (March 21, 1997), Universidade de São Paulo, Brazil (April 25, 1997).
- "Unit Roots and Cointegration Issues With Strong Serial Correlation or Abrupt Governmental Interventions," XVII Encontro Brasileiro de Econometria, Salvador, Brasil (December 14, 1995).
- "Unit Roots in the Presence of Abrupt Governmental Interventions with an Application to Brazilian Data," Universidade de Sao Paulo, Campus de Riberio Preto (November 1995), Journées PARADI, Montréal (October 14, 1995), Université de Bourgogne, Dijon (May 9, 1996).
- "An Autoregressive Spectral Density Estimator at Frequency Zero for Nonstationarity Tests," World Congress of the Econometric Society, Tokyo, Japan (August 26, 1995), Canadian Econometric Study Group, Waterloo (September 21, 1996), Harvard/MIT Econometric Workshop (October 10, 1996).
- "Estimation and Inference in Nearly Unbalanced Nearly Cointegrated Systems," Conference on "Topics in Empirical Macroeconomics", Ebeltoft, Denmark (June 3, 1995), Pontificia Universidade Catelica Rio, Brasil (November 17, 1995), CREST-INSEE, Paris (April 4, 1996), GREQAM, Marseille (May 24, 1996).
- "Racines Unitaires: Quelques Développements Récents et Problèmes Non Résolus," Société Canadienne de Sciences Économiques, Lac Delage (May 9, 1995).
- "Estimating and Testing Linear Models with Multiple Structural Changes," McGill University (December 12, 1994), North American Winter Meeting of the Econometric Society (Washington, January 8, 1995), Pontificia Universidade Catolica (Rio, Brasil, March 30, 1993), Universidade de São Paulo, Brasil (April 28, 1995), Institute of Economics, University of Copenhagen (June 8, 1995), Joint Annual Meeting of the Canadian Statistical Association and the Institute of Mathematical Statistics, Montréal (July 12, 1995), Conference on Recent Advances in Econometrics, Hitotsubashi University, Japan (August 31, 1995), Université de Lausanne (January 11, 1996), European University Institute (February 19, 1996), Séminaire Malinvaud, CREST-INSEE, Paris (March 25, 1996), University of York, England (May 15, 1996), Université de Montréal (October 16, 1996).
- "Nonstationarities and Nonlinearities in Canadian Inflation," Bank of Canada (October 30, 1993), Université de Montréal, Journée Roger Dehem (November 1993).
- "Useful Modifications to Some Unit Root Tests with Dependent Errors and their Local Asymptotic Properties," 5th Workshop on Time Series Econometrics, University of Sao Paulo, Brasil (July 5, 1993), Université Libre de Bruxelles (May 6, 1994), Université

- Catholique de Louvain, CORE, Louvain (May 11 1994), University of Aarhus, Denmark (May 24 1994), University of Amsterdam (May 26 1994).
- "Unit Root Tests in ARMA Models with Data Dependent Methods for the Selection of the Truncation Lag," Cornell University (March 30, 1993), Pontificia Universidade Catolica (Rio, Brasil, July 2, 1993), Canadian Econometric Workshop (Toronto, September 25, 1993), (EC)² Conference (Oxford, December 17, 1993), North American Winter Meetings of the Econometric Society, Boston (January 4, 1994), The Johns Hopkins University (April 12, 1994), Université Libre de Bruxelles (May 31, 1994), University of Rochester (October 7, 1994), Boston University (October 27, 1994), Wayne State University (December 2, 1994).
- "Trend, Unit Root and Structural Change in Macroeconomic Time Series," Congrès de la Société Canadienne de Sciences Économiques, UQAM, Montréal (May 21, 1993), Pontificia Universidade Catolica, Rio, Brasil (June 28, 1993), York University (December 3, 1993), Université d'Ottawa (April 15, 1994), Latin American Meetings of the Econometric Society, Caracas, Venezuela (August 3, 1994), University of Waterloo (November 3, 1994), McMaster University (November 4, 1994), Universidade de São Paulo, Brasil (March 16, 1995), Fondação Getulio Vargas, Rio de Janeiro, Brazil (April 18, 1995), Tokyo International University (August 28, 1995).
- "Trend, Unit Root and Structural Change: A Multi-Country Study with Historical Data," Meetings of the American Statistical Association, Boston (August 11, 1992), UQAM (December 1992).
- "A Test for Changes in a Polynomial Trend Function for a Dynamic Time Series," Harvard-MIT Econometric Workshop (April 11, 1991), University of California at San Diego (April 23, 1991), Northwestern University (May 14, 1991), University of Chicago (May 15, 1991), Canada Statistics '91, Concordia University, Montréal, (May 25, 1991), The NBER Summer Workshop (July 11, 1991), Université de Montréal (August 29, 1991), Columbia University (September 30, 1991), 1992 Winter Meeting of the Econometric Society, New Orleans (January 3, 1992), Queen's University (March 24, 1992).
- "Pitfalls and Opportunities: What Macroeconomists Should Know About Unit Roots," NBER Annual Macroeconomics Conference, Cambridge (March 8, 1991), Board of Governors of the Federal Reserve System, Washington (November 14, 1991).
- "The Adequacy of Limiting Distributions in the AR(1) Model with Dependent Errors," Princeton University (November 1989), Université de Montréal (November 1989), University of Pennsylvania (February 27, 1990), Duke University, Econometrics Research Triangle Workshop (March 27, 1990), University of Western Ontario (April 6, 1990), Yale University (April 18, 1990), North American Summer Meeting of the Econometric Society, Philadelphia (July 1, 1991).

- "Further Evidence from Breaking Trend Functions in Macroeconomic Variables," Université du Québec à Montréal (March 21, 1990), Princeton University (April 23, 1990), the National Bureau of Economic Research Summer Workshop (Cambridge, July 9, 1990), 1990 North American Winter Meeting of the Econometric Society Washington, DC (December 28, 1990), University of California at San Diego (April 25, 1991), International Conference on Econometrics of Nonstationary Models and Cointegration, Paris (June 13, 1991).
- "Nonstationarity and Level Shifts with an Application to Purchasing Power Parity," Pittsburgh University (November 28, 1990).
- "An Analysis of the Real Interest Rate under Regime Shifts," National Bureau of Economic Research Summer Workshop, Cambridge (July 1989), Rutgers University (November 1989).
- "The Great Crash, the Oil Price Shock and the Unit Root Hypothesis," Montréal Econometric Workshop (November 1987), the McGill University Conference on Approaches to the Business Cycles (March 1988), the National Bureau of Economic Research (May 1988), the Canadian Economic Association Meetings (June 1988), the Econometric Society Meetings (December 1988).
- "Testing for a Unit Root in a Time Series Regression with a Changing Mean," Congrès de la Société Canadienne de Sciences Économiques, Lac Delage (May 1988).
- "The Humped Shaped Behavior of Macroeconomic Fluctuations," Bank of Canada (June 1988), The Ohio State University (November 1989), The 1989 Econometric Society Winter Meeting, Atlanta (December 1989).
- "A Continuous Time Approximation to the Unstable First-order Autoregressive Model: the Case Without an Intercept," Université de Montréal, (August 1988), The Canadian Econometric Workshop, McMaster University (October 1989).
- "A Continuous Time Approximation to the Stationary First-order Autoregressive Model," Université de Montréal (November 1988).
- "Test Consistency with Varying Sampling Frequency," 1987 Summer Meeting of the Econometric Society (Berkeley, June 1987), the Canadian Econometric Study Group (Waterloo, September 1987), the University of Ottawa (October 1987), the University of Guelph (October 1987).
- "The Exact Error in Estimating the Spectral Density at the Origin," National Bureau of Economic Research Summer Institute (June 1987).